

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

**TRANSLATION**  
**PCT**

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing  
(day/month/year)

Applicant's or agent's file reference

**A5137SS-PCT**

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

**PCT/JP2005/022857**

International filing date (day/month/year)

**13.12.2005**

Priority date (day/month/year)

**16.12.2004**

International Patent Classification (IPC) or both national classification and IPC

Applicant

**NEOMAX CO., LTD.**

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Date of completion of this opinion

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/022857

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:
  - ☒ the international application in the language in which it was filed
  - ☐ the translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rule 12.3(a) and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material
    - ☐ on paper
    - ☐ in electronic form
  - c. time of filing/furnishing
    - ☐ contained in the international application as filed
    - ☐ filed together with the international application in electronic form
    - ☐ furnished subsequently to this Authority for the purposes of search
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
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International application No.

PCT/JP2005/022857

**Box No. V** Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

**1. Statement**

Novelty (N)	Claims	1-14	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-14	NO
Industrial applicability (IA)	Claims	1-14	YES
	Claims		NO

**2. Citations and explanations:**

Document 1: JP 2003-286548 A (Sumitomo Special Metals Co., Ltd.), 10 October 2003, full text, all drawings (Family: none)

Document 2: JP 2002-343659 A (Nissan Motor Co., Ltd.), 29 November 2002, Claims 2, 10; Par. Nos. 0051, 0058, 0061, 0092 & US 2003/62097 A1

Document 3: JP 2002-100507 A (Nissan Motor Co., Ltd.), 05 April 2002, Claim 3; Par. Nos. 0047-0049, 0059 & US 2002/36559 A1 & EP 1191552 A3

Document 4: JP 2001-244105 A (Seiko Epson Corp.), 07 September 2001, 07 September 2001, Claim 1; Par. Nos. 0025, 0030 (Family: none)

**Claims 1-14**

Document 1 cited in the ISR describes a rapidly cooled alloy for a nano-composite magnet produced by rapidly cooling an alloy having the same composition as the invention of the present application except for the added quantity of the one or more elements selected from the group consisting of B and C under the same cooling conditions as in the present application, then heat treating under the same heating conditions as in the present application, wherein a soft magnetic phase exists in the boundary region of the crystal grains of the  $R_2Fe_{14}B$  type compound phase.

As described in documents 2-4 cited in the ISR, making the added quantity of B a specified quantity and making the soft magnetic phase  $\alpha$ -Fe by using an alloy of this composition are commonly known techniques in alloys for RTB nano-composite magnets.

Applying the techniques described in documents 2-4 to the alloy described in document 1 so as to obtain the constitution of the inventions of claims 1-14 would be easy for a party skilled in the art.